Modification for Team Science (TS)

Team science has been growing in importance in biomedical and behavioral discoveries. For instance, NIH-funded extramural research, including that funded by research project (R) grants, has been producing mostly multi-author papers with increasing numbers of authors per paper over time. Other funding mechanisms at NIH designed to promote large-scale, multi-project Team Science (TS)—mainly program project or center (P) grants and cooperative agreements (U)—generate papers with greater numbers of authors. Greater numbers of authors are often associated with greater citation influence. When we look more closely at the impact of the shift, we see that collaboration is proving to move science forward in important and diverse ways.

To facilitate "team science" at HSC, the Division of Research and Innovation (DRI), working with the President's Research Council (PRC) and the DRI Research Advisory Committee (RAC), has developed a new initiative to support this approach. This Program Announcement (HSC-TS-001) will provide developmental support for a project or program that will ultimately result in a competitive and fundable grant application to an external funding agency that provides significant direct and indirect funding to establish a major ongoing and sustainable initiative of strategic HSC research interest. The proposal will be evaluated based on the merit of the scientific idea, and the strength and synergy of the proposed team. Awards are for a two-year, non-renewable period.

This program has the HSC values of *Better Together* and *Be Curious* as its underpinnings, with two opportunity pathways:

- <u>Collaboration among team members to develop a project requiring interdisciplinary skills and approaches</u> that are essential to exploring and/or developing a novel approach and solution to an existing problem within a defined area of strategic research interest to HSC and/or UNT System. The current Research Areas of Strength at HSC, among many, include:

  - Cardiovascular Research
  - Genetics/Genomics
  - Health Disparities / Population Health
  - Prevention of Substance Use and Related Risk Behaviors
  - Neurodegenerative Disease, primarily Alzheimer's Disease
  - Vision Research

  Projects within this pathway would involve investigators with different types of expertise addressing the same problem from different scientific perspectives. This can include investigators from other UNT Campuses or hospital that have an MOU that establishes a formal collaborative relationship.

P01 / P20—multidisciplinary, multi-project research program headed by a PI or PIs who bring in other investigators to conduct research projects and share resources toward a common program goal.

P30 / P50—a center core grant that supports shared resources and facilities for a multidisciplinary research team or group of investigators focusing on a common research topic. P50 centers may also serve as regional or national resources for special research purposes.

U01 / U54—support for translational or implementation research from basic to clinical to population, including ancillary supportive activities that create a multidisciplinary focus on a disease or a biomedical problem.

Since this Team Science initiative is designed as a semi-annual program, there is no limit on the number of applications that can be submitted for consideration. Applications will be reviewed once a year (mid-April.)

Requirements include:

- A faculty member can be a principal investigator (PI) on only one application per year,

- Existing faculty member and/or unit (department or college / school) discretionary funds must be committed to the endeavor. Where possible, a significant unit or investigator match is expected as a demonstration of unit investment and commitment to the project,

- To participate in this program, the PI(s) must be full-time regular HSC or UNT Denton faculty member(s). Co-Investigators (Co-Is) may be in any faculty category. Graduate students, postdoctoral fellows, staff, and part time faculty are not eligible to serve as PIs or Co-Is.

Funding:

A maximum of up to $200,000 inclusive of any unit match funds over a two-year period per application; special attention will be given to the fiduciary credibility of the proposed TS budget and research plan. Funding will be released as major components of the project are completed (as shown in SMART goals). Up to three awards per year may be made, depending on availability of funds.

The TS Program will have internal review by PRC and RAC members as well as external content experts, if needed. Multi-campus applications should include financial contributions from each campus.

Research Proposal Components (similar to that of an NIH application):

1. Face Page

2. Budget

3. Budget Justification

4. Biographical Sketch for the PI/Team Leader and each investigator (use current NIH format)

5. Research Plan (6-page limit)

The Research Plan should propose a single integrated program of research addressing a significant scientific question with a single set of specific aims sufficient to accomplish a well-defined goal within the allowable period. The Plan should be highly innovative, develop new concepts, address critical issues, and be sufficiently challenging that a single investigator alone is unlikely to advance the field.

    a. Specific Aims (1-page limit)

    b. Background: Significance and Innovation (2 pages)

    c. Preliminary Studies   }   4-page limit for sections c-d

    d. Research Design and Methods   }

    e. References (no page limit)

6. Team Management Plan (describe MPIs, if applicable, and team members and their scientific contributions to the project)

7. Vertebrate Section (if applicable)

8. Human Studies (if applicable)

9. SMART (Specific, Measurable, Achievable, Realistic, Time-bound) goals (2-page limit)

The proposal should provide "SMART" goals to be accomplished by the end of every six months of the project, where SMART stands for Specific, Measurable, Achievable, Realistic, and Time-bound. The SMART goals should be tangible and measurable outcomes that the proposed work is likely to produce. There should be a description of major milestones that are tied to the funding (e.g., hiring of staff and purchase of equipment (> $5000), launch of pilot data collection, analysis, presentation or publication). There should also be a description of how this work will lead to extramural funding and the planned funding program to which this project will be submitted.

10. Literature Cited

11. Brief Summary of Team Members' available time/effort to the project. NIH biosketches should list current as well as pending support.

12. Equipment justification and quote (if essential; see Budget below)

Budget

The following restrictions apply to requested funds.

	Allowable	Not Allowable
Faculty Salary		X
Student/Postdoc Salary	X	
Tuition		X
Administrative/Staff Salary	X	
Supplies	X	
Furniture/Equipment	X*	
Computers/Software	X	
Alterations/Renovations	X*	
Travel	X*	
Indirect Costs/Subcontracts		X
Participant Incentives/Hospital Per Diem	X	

- **Departmental/College or School matching funds, if any, will be considered in the criteria for review. Funds beyond salary cost-sharing are encouraged. Provide a description of the funds that are available and a chart string for those funds, along with a signed written commitment from the account holder. There may be multiple contributors and this information should be included for each funding source. At the time of the award, there will be a direct transfer to DRI for the allocation of those funds to the project for the first year.**

NOTES:

* Laboratory equipment costing over $5,000 must have clear and **significant justification.**

* Domestic travel only. Such travel funds must be directly related to core components of the proposed research plan, such as data collection.

* Alterations and Renovations must be project-essential and justified.

Funds are for a non-renewable, two-year period. No-cost extensions (NCE) are not allowed, except in extenuating circumstances. All extension and re-budget requests must be approved by the Vice President for Research and Innovation.